

MEMORANDUM
New Mexico Office of the State Engineer
Water Use & Conservation Bureau

Date: January 6, 2003

To: Brian C. Wilson, P.E., Chief, Water Use & Conservation Bureau

From: John T. Romero, P.E.

Subject: Star's End Estates Subdivision, Preliminary Plat Review, Otero County

This proposal is a request to develop a 41.58-acre parcel of land into a Type III subdivision containing 17 lots. The proposed parcels (lots) are between 7.05 acres and 1.12 acres in size. The subdivision is located in Section 17, Township 16 South, Range 14 East, New Mexico Principal Meridian. On November 12, 2002, this proposal was reviewed pursuant to the Otero County Subdivision Regulations and provisions of the New Mexico Subdivision Act.

The subdivider proposes that water for the subdivision will be provided by two (2) shared 72-12-1 domestic wells and one individual well. The subdivider proposes that both shared wells serve eight (8) parcels each. Appendix C, Section C.2C of the Otero County Subdivision Regulations defines the maximum number of parcels, which may share a 72-12-1 domestic well as four (4). It further states that the maximum annual water use for all parcels, served by a shared 72-12-1 domestic well, shall not exceed 3.0 acre-feet per year. This is also the maximum allowed by the domestic well statute. The subdivider is requesting a variance to the maximum number of parcels allowed to be served by a shared 72-12-1 domestic well.

During the previous review of this request the water budget was examined very closely. It was mentioned that the water budget was calculated assuming 3.0 capita per household with 1,700 square feet of outdoor water use and no allowances for distribution system losses. The total expected water use consumed by eight (8) parcels was calculated to be 2.19 acre-feet per year according to the subdivider. The subdivider has now used 3.5 instead of 3.0 capita per household and has included a five (5) percent distribution loss for a total water use of 2.23 acre-feet per year per well. These figures are more indicative of the actual water use that will occur at the subdivision.

The subdivider has also addressed water conservation as required by Appendix C, Section C.2 of the Otero County Subdivision Regulations. The subdivider has also included covenants and restrictions requiring the use of water saving fixtures and other water conservation measures in the disclosure statement. For example, the subdivider has restricted the use for decorative ponds, water fountains, jacuzzi's and swimming pools. The subdivider has also stated, in the disclosure statement, that, water use will be metered

at each well with a totalizing water meter and meter readings submitted to the Office of the State Engineer (OSE) on a quarterly basis.

As mentioned in our previous review the subdivider has requested a variance to allow more than the allowed four (4) parcels share a 72-12-1 domestic well. If the county does not approve the variance, it is my opinion that the subdivider has satisfied the requirements of the Otero County Subdivision Regulations. If the county decides to approve the variance request the subdivider will be required to address the life expectancy of the proposed water supply showing sustained production of water over a 40-year period pursuant to Appendix C, Section C.3.C of the Otero County Subdivision Regulations. The subdivider has only addressed water availability pursuant to Appendix C, Section C.4.A of the Otero County Subdivision Regulations for individual or shared 72-12-1 wells.

The OSE recommends that the county consider some issues before the variance request is approved or disapproved. The first consideration that should be considered is the issue concerning the responsibility of each parcel owner. A good Well Agreement should clearly state what the financial, legal and other responsibilities are for each household sharing a well. What amount of water storage and fire flows will be required? Will a more stringent water treatment process be required if more than the allowed number of households are connected? What if any contingency plans are set in place in the event over diversion of water takes place? How does the subdivider plan on keeping each household to their allotted 300 gallons per parcel per day? What if a well goes down due to pump failure or some other cause, then there will be eight homes without water for a period of time instead of only four. It is suggested that the county require the subdivider to provide information addressing these questions before issuing an opinion on the variance request.

It was suggested in our last review, and again now that the county approve six (6), or less, household connections per well instead of eight (8) as requested. Another suggestion is to have the seventeen (17) parcels share the three wells that are to be drilled and approve a variance for five (5) parcels on one well. The OSE's main concern with this variance request is the potential for over diversion of water and the possible future creation of an illegal community water system with the commingling of part or all of the proposed 72-12-1 domestic wells serving the subdivision. Also, the New Mexico Environment Department (NMED) should be consulted to ensure environment rules are followed. For example, NMED defines a public water system as a system that provides piped water for human consumption to at least 15 service connections **or** regularly services an average of at least 25 individuals at least 60 days out of the year. Under this definition the subdivider will be required to provide additional water availability information pursuant to Appendix C, Section C.3.C mentioned above and additional permitting and regulation might be required from the Environment Department.

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It is my opinion that the subdivider's water proposal does not conform to the Otero County Subdivision Regulations and the New Mexico Subdivision Act concerning water availability if the variance is approved without additional water availability information. Therefore, a favorable opinion will be **withheld** at this time.